

Notice of Allowability

Application No.

09/781,304

Examiner

Longbit Chai

Applicant(s)

GARCIA, FRANCISCO ANDEYRO

Art Unit

2131

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to interview on 6/6/2006.
2. ☒ The allowed claim(s) is/are 1-7 and 9-31.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☒ Interview Summary (PTO-413), Paper No./Mail Date 6/6/2006
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____


AYAZ SHEIKH

SUPERVISORY PATENT EXAMINER

TECHNOLOGY CENTER 2100

DETAILED ACTION

Claims 1 – 31 have been presented for examination. Claim 8 has been cancelled and claims 1, 26, 27 and 28 have been amended in an amendment filed 4/6/2006.

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 4/6/2006 has been entered.

Examiner's Amendment

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Chid S. Iyer (Reg. No. 43,355) on 6/6/2006.

This application has been amended as follows:

IN THE CLAIMS

Cancel claim 8 without prejudice.

Replace claim 2, 17, 18, 19 and 31 as follows.

Claim 2. (currently amended): - Method pursuant to the foregoing as set forth in claim 1, best described because the bidimensional space in question is materialized in a computer screen and the array distribution of cells is defined by a specific resolution of the screen, which may be selected, and each cell is considered as a pixel or basic element of an image or its analytical representation.

Claim 17. (currently amended): - Method for the encryption and decryption of messages relayed between a first and second station, or between multiple stations, consisting in variable length binary data blocks, and using the same graphic or analytic algorithm both for encryption and decryption as set out in claims 10 to 13, 16, the data being introduced in an array delimited by the first contour and because the operation, made on the contents of a cell each time this cell of the first contour is used to plot a line of the set, makes use of the value stored in such cell and its corresponding value in a pseudo-random linear sequence generator, and the correlation is established pursuant to a specific order in the data array of the first contour, and if the data introduced, completely fills the array in question, the additional data is assigned, defining new pairs

of first and second contours, being the first of these a new array for the loading of plaindata. And so on, until plaindata is off.

Claim 18. (currently amended): - Method for encryption and decryption, as set forth in claim 17, characterised in that the values of the pseudo-randomly generated linear sequence, for example, by a linear feedback shifted register (LFSR) of n degree, are filtered by any of the methods provided under claims 10 to 16, operating as a non-linear filtering method.

Claim 19. (currently amended): - Method, as set forth in claim 18, characterised in that it includes a secret key, randomly generated to be exchanged by means of a secure server between the sender(s) and recipient(s), the said key being the same for the encryption and decryption process, the contents of such key comprise the definition of the Linear Feedback Shifted Register, as well as the coordinates of the pole, the array size, the distance from the first contour to the second one, and any other parameter which may be required for any of the specific implementations foreseen under any of the methods set forth in claims 10 to 16.

Claim 31. (currently amended): - A computer program directly loaded in the memory of a computer including parts of the programming code to perform stages set out in claims 1, 2, 6, 7, 9 - 13 ~~to 3, 6 to 13~~, and 16 to 26 and 28 when the said program is executed in that

computer.

Allowable Subject Matter

1. Claims 1 – 7 and 9 – 31 are allowed.
2. The following is an examiner's statement of reasons for allowance:

The above mentioned claims are allowable over prior arts because the CPA (Cited Prior Art) of record fails to teach or render obvious the claimed limitations in combination with the specific added limitations, as recited in independent claim 26, 27 and 28 and subsequent dependent claims.

The prior arts Rhoads, alone or in combination with Koopman, fail to teach or suggest a method based on an algorithm capable of being graphically implemented to be used for the generation or filtering of data sequences and cryptographic applications by choosing a cell as the pole, and plot a set of lines from the pole of that cell, and repeat the process, up to a given number of cells which define the second contour, covering all or part of that contour until the first area has been fully swept; perform an operation on the contents of each of the cells used when plotting each of the lines of the set and included in that first contour, thereby transforming their state each time the cell in question is found in one of the lines of the set; and the second contour is unregularized and the cells of the same are obtained by means of a Pseudo-Noise Sequence Generator (PNSG), so that the distance from the cells within that second contour to their corresponding pole is dependent on the output of the Pseudo-Noise Sequence Generator.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Longbit Chai whose telephone number is 571-272-3788. The examiner can normally be reached on Monday-Friday 8:00am-4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ayaz R Sheikh can be reached on 571-272-3795. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


LBC

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